

REMARKS

Claims 67-71, 73-80, 82-84, 92, and 94 were pending in the application. By this amendment, claims 67 and 92 have been amended, claim 75 has been cancelled, and new claims 95-96 have been added. Accordingly, claims 67-71, 73, 74, 76-80, 82-84, 92, and 94-96 are pending. Reexamination and reconsideration of the claims as amended are respectfully requested.

Without acceding to any of the grounds for rejection set forth in the Office Action, Applicants respond as follows:

I. Rejections Under 35 U.S.C. § 102

Claims 67-71, 73-80, 82-83, 92, and 94 were rejected under 35 U.S.C. § 102(b) as being anticipated by United States Patent No. 5,916,147 to Boury. For the reasons set forth below, Applicants respectfully traverse these rejections.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236 (Fed. Cir. 1989).

Without acceding to the grounds for rejecting the claims, Applicants have amended claim 67 to recite an endoluminal apparatus comprising, inter alia, an elongated body having first and second sections and “a longitudinal axis,” with the first section including a plurality of nested links and with substantially all adjacent links “having a plurality of first pullwire lumens.” The claim further recites:

a plurality of first pullwires routed through substantially each of the first pullwire lumens, with each of the first pullwires being fixed to the elongated main body at a location at or near a distal end of the first section and at substantially a common point along the longitudinal axis of the main body, the first pullwires being substantially symmetrically spaced around the periphery of the nested links of the first section,

and

a tensioning mechanism operatively coupled to each of said first pullwires and adapted to impart a tension force that is substantially evenly distributed to each of said first pullwires, wherein the first section may be selectively switched between a substantially flexible condition and a substantially rigid condition

Support for these amendment is found throughout the specification and drawings, such as, for example, at paragraphs 0088-0091 and 0122-0133, and at Figures 9A-E and 19A-D. Figures 9B and 19C are reproduced below:

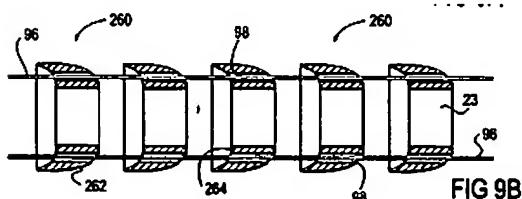


FIG 9B

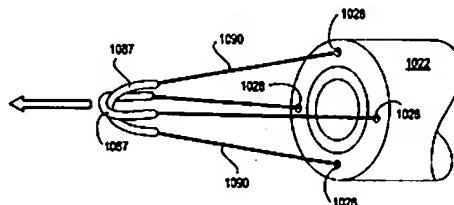
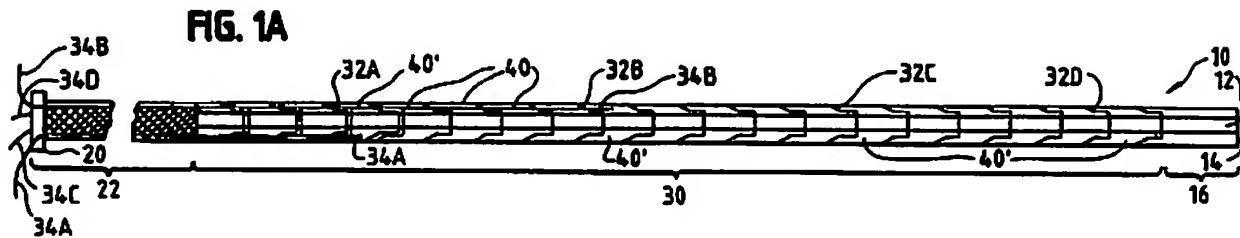


FIG 19C

The features added to claim 67 by this amendment provide the recited endoluminal apparatus with the capability of rigidizing or shapelocking a section of the elongated main body by applying a tension force that is evenly distributed over pullwires that are (a) symmetrically spaced about the periphery of the nested links and that (b) terminate at a common point along the longitudinal axis of the device. (See, e.g., Specification at paragraphs 0090 and 0124, and Figures 9C and 19C). This is different from steering, in which tension is applied to a specific pullwire to form a curvature in the shaft, as explained in the specification at paragraph 0089.

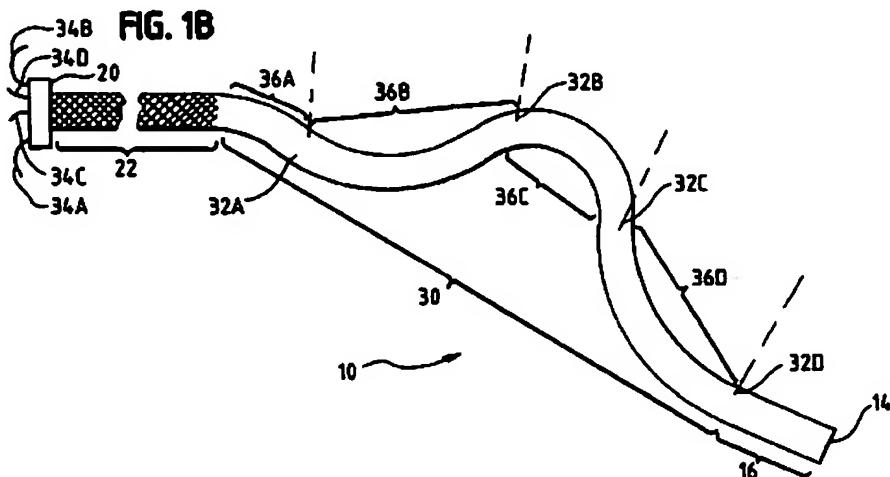
The Boury patent, on the other hand, describes a remotely steerable catheter 10 made up of a plurality of links 40, as shown in FIG. 1A from the patent reproduced below:



A plurality of control wires 34A-D extend through the catheter and terminate at selected nodes 32A-D *spaced along the length of the catheter*. As explained in the patent:

In the embodiment illustrated in FIGS. 1A and 1B, though, each of the four control wires is attached to a different node. In particular, control wire 34A is attached to node 32A; control wire 34B is attached to node 32B; control wire 34C is attached to node 32C; and control wire 34D is attached to node 32D. As these nodes are spaced from one another along the length of the catheter, the control wires will extend a different length along the length of the catheter before reaching the associated node.

(Boury, col. 5, ll. 40-48). These features allow separate sections of the Boury catheter to be steered independently to achieve complex curves, such as illustrated in FIG. 1B:



Nowhere does Boury describe rigidizing or shapeloading the described catheter. This is because the Boury catheter does not have a plurality of first pullwires with “each of the first pullwires being fixed to the elongated main body at a location at or near a distal end of the first section and at substantially a common point along the longitudinal axis of the main body, the first pullwires being substantially symmetrically spaced around the periphery of the nested links of the first section.” Instead, each of the Boury catheter control wires 34 is attached to one of a plurality of nodes 32 that are “spaced from one another along the length of the catheter,” with the result that “the control wires will extend a different length along the length of the catheter before reaching the associated node.” (Boury, col. 5, ll. 40-48). Nor does the Boury catheter include “a tensioning

mechanism operatively coupled to each of said first pullwires and adapted to impart a tension force that is substantially evenly distributed to each of said first pullwires, wherein the first section may be selectively switched between a substantially flexible condition and a substantially rigid condition.” Instead, Boury teaches that an operator is to manually grasp the control wires to manipulate the catheter. (Boury, col. 5, ll. 10-16).

These features of the Boury catheter are very different from the devices recited in the pending claims in both construction and function. As a result, the Boury patent does not anticipate claim 67, or the claims dependent therefrom.

Claim 92 was also amended to recite an apparatus comprising, inter alia, a shaft having first and second sections and “a longitudinal axis,” with the first section including a plurality of first links and with substantially all adjacent links “having a plurality of first pullwire lumens.” The claim further recites:

a plurality of first pullwires extending through substantially each of the first pullwire lumens, with each of the first pullwires being fixed to the shaft at a location at or near a distal end of the first section and at substantially a common point along the longitudinal axis of the shaft, the first pullwires being substantially symmetrically spaced around the periphery of the first links of the first section

As discussed above, the Boury patent fails to teach or suggest a device meeting these limitations. Accordingly, for the same reasons set forth above, there can be no anticipation of claim 92.

II. Rejection Under 35 U.S.C. § 103

Claim 84 was rejected under 35 U.S.C. § 103 as allegedly being unpatentable over the Boury patent in view of U.S. Patent No. 3,897,775 to Furihata. For the reasons set forth below, Applicants respectfully traverse these rejections.

To establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a) in view of a reference or combination of references, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of

success. Third, the prior art references(s) must teach or suggest all of the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. Finally, in determining the differences between the prior art and the claims, the question under 35 U.S.C § 103(a) is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious.

Claim 84 depends from claim 67 which, as discussed above, is patentable over the Boury patent. The Furihata patent does not provide any of the disclosure missing from the Boury patent. Accordingly, because neither of the cited patents teaches one or more limitations recited in the claims, the Office Action fails to establish a prima facie case of obviousness. Claim 84 contains patentable subject matter, and the rejection of the claim must be withdrawn.

III. New Claims 95-96

New claims 95 and 96 each depend from claim 67, and is each is patentable over the Boury and Furihata patents for at least the reasons set forth above.

Accordingly, Applicants request withdrawal of the rejections of the pending claims, and issuance of a notice of allowance.

Amendment and/or cancellation of certain claims is not to be construed as a dedication to the public of any of the subject matter of the claims as previously presented. Similarly, unless explicitly stated, nothing contained or not contained in this paper should be construed as an assent to any of the Examiner's stated grounds for rejecting the claims, including specifically the Examiner's characterization of the teachings of the cited art. Rather, the present amendments to the claims and Remarks are an attempt to expedite allowance and issuance of the currently pending claims.

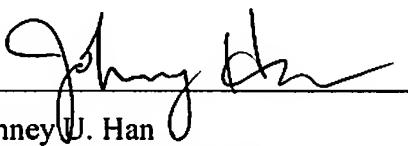
No new matter has been added.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejections and pass this application to issue. If it is determined that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number given below.

In the event the appropriate fee and/or petition is not filed herewith and the U.S. Patent and Trademark Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with this filing to Deposit Account No. 50-3973 referencing Attorney Docket No. USGINZ00130. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,



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